Description of requirement:

The Fiber Optic Acoustic Sensor section (Code 5674) is looking to purchase an advanced fiber optic fusion splicer capable of splicing small and large diameter fibers. The splicer should be able to accommodate fiber diameters ranging from 80 um to 2 mm, and be able to splice dissimilar fibers. The heat zone of the splicer should be able to translate relative to the fiber to allow for post-splice flame polishing. Using multiple axes of control, the splicer should be capable of splicing PM fibers of various types, multicore-to-multicore fiber and multicore-to-single core fiber, silica capillaries, exotic glasses (such as sapphire), and photonic crystal fiber with no air hole collapse. While manual splicing should be available, the majority of the splicing operations will be controlled automatically and have real time feedback of the process displayed on a LCD screen. The splicer should also feature an end-view imaging system capable of examining the ends of the fiber prior to the splice. Additionally, the system should be able to perform various glass processing tasks such as fiber tapering and drawing, fiber lensing, fabrication of fiber couplers, and attaching end caps to fibers.